

## WHAT IS CLAIMED IS:

1           1.     A work station for simultaneously performing multiple assays, said work station  
2 comprising:

3           (a)     a receptacle holding structure constructed and arranged to hold a plurality of  
4 receptacles;

5           (b)     a substance transfer device constructed and arranged to operatively interact with a  
6 first set of two or more of the plurality of receptacles held in said receptacle holding structure to  
7 simultaneously dispense substance into each of the two or more receptacles of the first set and to  
8 operatively interact with a second set of two or more of the plurality of receptacles held in said  
9 receptacle holding structure to simultaneously remove substance from each of the two or more  
10 receptacles of the second set, wherein said substance transfer device is constructed and arranged  
11 to simultaneously remove substance from each of the two or more receptacles of the second set  
12 at about the same time that said substance transfer device is simultaneously dispensing substance  
13 into each of the two or more receptacles of the first set; and

14           (c)     substance transfer device positioning structure associated with said receptacle  
15 holding structure and constructed and arranged to permit said substance transfer device to be  
16 positioned with respect to said receptacle holding structure to allow said substance transfer  
17 device to:

18                   (i)     simultaneously dispense substance into each of the two or more  
19 receptacles of the first set,

20                   (ii)    simultaneously remove substance from each of the two or more  
21 receptacles of the second set, or

22                   (iii)   simultaneously dispense substance into each of the two or more  
23 receptacles of the first set and simultaneously remove substance from each of the two or  
24 more receptacles of the second set at about the same time that said substance transfer  
25 device is simultaneously dispensing substance into each of the two or more receptacles of  
26 the first set.

1           2.     A work station for simultaneously performing multiple assays, said work station  
2 comprising:

3           (a)     a receptacle holding structure constructed and arranged to hold a plurality of  
4 receptacles;

5 (b) a substance transfer device constructed and arranged to operatively interact with a  
6 first set of two or more of the plurality of receptacles held in said receptacle holding structure to  
7 simultaneously dispense substance into each of the two or more receptacles of the first set and to  
8 operatively interact with a second set of two or more of the plurality of receptacles held in said  
9 receptacle holding structure to simultaneously remove substance from each of the two or more  
10 receptacles of the second set, wherein said substance transfer device is constructed and arranged  
11 to simultaneously remove substance from each of the two or more receptacles of the second set  
12 at about the same time that said substance transfer device is simultaneously dispensing substance  
13 into each of the two or more receptacles of the first set;

14 (c) a contamination limiting element holding structure for removably holding a  
15 plurality of contamination limiting elements which are operatively engageable by said substance  
16 transfer device to limit contact between said substance transfer device and a potentially  
17 contaminating substance dispensed by said substance transfer device into the two or more  
18 receptacles or between said substance transfer device and a potentially contaminating substance  
19 removed by said substance transfer device from the two or more receptacles, said contamination  
20 limiting element holding structure being constructed and arranged to:

21 (i) receive and removably hold the plurality of contamination limiting  
22 elements in an operative orientation in which the contamination limiting elements can be  
23 operatively engaged by said substance transfer device, and

24 (ii) allow said substance transfer device to simultaneously engage two or  
25 more of the plurality of contamination limiting elements and allow the two or more  
26 contamination limiting elements engaged by said substance transfer device to be removed  
27 from said contamination limiting element holding structure; and

28 (d) a substance transfer device positioning structure associated with said receptacle  
29 holding structure and said contamination limiting element holding structure and constructed and  
30 arranged to:

31 (i) permit said substance transfer device to be positioned with respect to said  
32 contamination limiting element holding structure to allow said substance transfer device  
33 to operatively engage the two or more contamination limiting elements, and

34 (ii) to permit said substance transfer device to be positioned with respect to  
35 said receptacle holding structure to allow said substance transfer device to:

36 (1) simultaneously dispense substance into each of the two or more  
37 receptacles of the first set,  
38 (2) simultaneously remove substance from each of the two or more  
39 receptacles of the second set, or  
40 (3) simultaneously dispense substance into each of the two or more  
41 receptacles of the first set and simultaneously remove substance from each of the  
42 two or more receptacles of the second set at about the same time that said  
43 substance transfer device is simultaneously dispensing substance into each of the  
44 two or more receptacles of the first set.

1 3. The work station of claim 2, further comprising a plurality of contamination  
2 limiting elements removably held by said contamination limiting element holding structure.

1 4. The work station of claim 2, further comprising a plurality of receptacles held by  
2 said receptacle holding structure.

1 5. The work station of claim 2, said contamination limiting element holding  
2 structure comprising one or more cassettes for holding a plurality of contamination limiting  
3 elements, each said cassette comprising:

4 side walls which are spaced apart and generally parallel to one another;

5 end walls which are opposed to one another and extend between said side walls at  
6 opposite ends thereof; and

7 a top panel having a plurality of apertures for receiving a plurality of contamination  
8 limiting elements formed therein, each said aperture adapted receive one of the plurality of  
9 contamination limiting elements.

1 6. The work station of claim 5, wherein each said cassette further comprises a  
2 plurality of dividing walls which are spaced apart and extend between said side walls and, in  
3 combination with said side walls and said end walls, define a plurality of contamination limiting  
4 element compartments, wherein each said compartment is capable of housing one of the  
5 contamination limiting elements.

1           7.       The work station of claim 6, further comprising a plurality of contamination  
2 limiting elements, each of said plurality of contamination limiting elements being housed in an  
3 associated one of said plurality of contamination limiting element compartments.

1           8.       The work station of claim 2, said contamination limiting element holding  
2 structure comprising one or more cassettes for holding a plurality of contamination limiting  
3 elements, each said cassette comprising:

4           a plurality of contamination limiting element-receiving tubes, each of said tubes having a  
5 channel formed therein for receiving a contamination limiting element and an opening for  
6 providing access to said channel;

7           a connecting structure holding said tubes together as an integral unit; and

8           a frustoconical surface surrounding said opening for facilitating alignment of a  
9 contamination limiting element with said opening.

1           9.       The work station of claim 2, wherein said receptacle holding structure, said  
2 contamination limiting element holding structure, and said substance transfer device positioning  
3 structure are all operatively disposed on a base structure.

1           10.      The work station of claim 2, wherein said receptacle holding structure comprises  
2 a receptacle rack for holding a plurality of receptacles arranged in an array.

1           11.      The work station of claim 10, further comprising a base structure, said base  
2 structure including a receptacle rack well formed in said base structure, wherein said receptacle  
3 rack is constructed and arranged to be removably disposed within said receptacle rack well.

1           12.      The work station of claim 11, wherein said receptacle holding structure further  
2 comprises one or more removable receptacle holding panels having a plurality of receptacle  
3 receiving apertures formed therein, said one or more removable receptacle holding panels being  
4 removably attachable to said receptacle rack for providing insert apertures by which each of the  
5 receptacles is inserted into said receptacle rack.

1           13.     The work station of claim 2, wherein said contamination limiting element holding  
2 structure comprises a pipette rack for holding a plurality of pipettes arranged in an array.

1           14.     The work station of claim 13, wherein said pipette rack comprises a top panel and  
2 upstanding sidewall structures supporting said top panel, said top panel having formed therein a  
3 plurality of slot arranged generally in parallel with one another, and wherein said contamination  
4 limiting element holding structure further comprises one or more cassettes for holding a plurality  
5 of contamination limiting elements, each of said one or more cassettes being constructed and  
6 arranged to be operatively positioned in an associated one of said slots formed in said top panel.

1           15.     The work station of claim 13, further comprising a base structure, said base  
2 structure including a pipette rack well formed in said base structure, said pipette rack being  
3 constructed and arranged to be removably disposed within said pipette rack well.

1           16.     The work station of claim 2, wherein said substance transfer device comprises:

2           (a)     an elongated central support member;

3           (b)     a pair of upstanding handle members attached to and extending upwardly from  
4 said central support member proximate opposite ends thereof;

5           (c)     a substance dispensing apparatus operatively mounted to said central support  
6 member and including two or more conduits, said substance dispensing apparatus being  
7 constructed and arranged to simultaneously dispense substance from each of said two or more  
8 conduits of said substance dispensing apparatus into each of the two or more receptacles of the  
9 first set; and

10          (d)     a substance removing apparatus operatively mounted to said central support  
11 member and including two or more conduits, said substance removing apparatus being  
12 constructed and arranged to simultaneously remove substance through each of said conduits of  
13 said substance removing apparatus from each of the two or more receptacles of the second set,  
14 wherein said substance removing apparatus is constructed and arranged to remove substance  
15 from each of the two or more receptacles of the second set at about the same time said substance  
16 dispensing apparatus is dispensing substance into each of the two or more receptacles of the first  
17 set.

17. The work station of claim 16, wherein said substance dispensing apparatus comprises a dispenser manifold defining a central conduit and two or more branch conduits extending from said central conduit, said central conduit of said dispenser manifold being connected to a source of substance to be dispensed into the receptacles, and, wherein said substance removing apparatus comprises an aspirator manifold defining a central conduit and two or more branch conduits extending from said central conduit through which substances are removed from the receptacles by aspiration, said central conduit of said aspirator manifold being connected to a container for storing substances aspirated from the receptacles.

18. The work station of claim 2, wherein said substance transfer device positioning structure comprises:

a receptacle registration structure disposed proximate said receptacle holding structure;  
and

a contamination limiting element registration structure disposed proximate said contamination limiting element holding structure,

and, wherein said substance transfer device includes a transfer registration structure constructed and arranged to be selectively engaged with either said receptacle registration structure or said contamination limiting element registration structure,

wherein said transfer registration structure is constructed and arranged to position said substance transfer device with respect to said contamination limiting element holding structure, when said transfer registration structure is engaged with said contamination limiting element registration structure, to allow said substance transfer device to operatively engage the two or more contamination limiting elements,

and, wherein said transfer registration structure is constructed and arranged to position said substance transfer device with respect to said receptacle holding structure when said transfer registration structure is engaged with said receptacle registration structure to allow said substance transfer device to:

(i) simultaneously dispense substance into each of the two or more receptacles of the first set,

(ii) simultaneously remove substance from each of the two or more receptacles of the second set, or

(iii) simultaneously dispense substance into each of the two or more receptacles of the first set and simultaneously remove substance from each of the two or more receptacles of the second set at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set.

19. The work station of claim 18,

wherein said receptacle registration structure comprises a pair of elongated guide supports, one of said elongated guide supports being positioned on either side of said receptacle holding structure, each of said elongated guide supports having a plurality of aligned, vertically extending guide holes formed therein, each of said guide holes of one of said pair of elongated guide supports being aligned with a corresponding guide hole of the other of said elongated guide supports,

wherein said contamination limiting element registration structure comprises a pair of elongated guide supports, one of said elongated guide supports being positioned on either side of said contamination limiting element holding structure, each of said elongated guide supports having a plurality of aligned, vertically extending guide holes formed therein, each of said guide holes of one of said pair of elongated guide supports being aligned with a corresponding guide hole of the other of said elongated guide support, and

wherein said transfer registration structure comprises a pair of spaced, generally parallel guide rods extending from said substance transfer device,

wherein one of said guide rods of said transfer registration structure is constructed and arranged to be inserted into a one of said guide holes of one of said elongated guide supports of said contamination limiting element registration structure and the other of said guide rods of said transfer registration structure is constructed and arranged to be inserted into said corresponding aligned guide hole of the other of said elongated guide supports of said contamination limiting element registration structure to position said substance transfer device with respect to said contamination limiting element holding structure to allow said substance transfer device to operatively engage the two or more contamination limiting elements, and

wherein one of said guide rods of said transfer registration structure is constructed and arranged to be inserted into a one of said guide holes of one of said elongated guide supports of said receptacle registration structure and the other of said guide rods of said transfer registration

structure is constructed and arranged to be inserted into said corresponding guide hole of the other of said elongated guide supports of said receptacle registration structure to position said substance transfer device with respect to said receptacle holding structure to allow said substance transfer device to:

- (i) simultaneously dispense substance into each of the two or more receptacles of the first set,
- (ii) simultaneously remove substance from each of the two or more receptacles of the second set, or
- (iii) simultaneously dispense substance into each of the two or more receptacles of the first set and simultaneously remove substance from each of the two or more receptacles of the second set at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set.

20. The work station of claim 11, further comprising a plurality of spaced, substantially parallel dividing walls extending laterally across a bottom portion of said receptacle rack well so as to define a plurality of spaced, laterally extending, substantially parallel receptacle receiving troughs across said bottom portion of said receptacle rack well for receiving therein portions of the plurality of receptacles held in said receptacle rack.

21. The work station of claim 20, further comprising magnetic structures incorporated into or defining said dividing walls to create a magnetic field within said troughs so as to expose any substance contained within the plurality of receptacles received within said receptacle receiving troughs to said magnetic field.

22. A work station for simultaneously performing multiple assays, said work station comprising:

- (a) a receptacle holding structure constructed and arranged to hold a plurality of receptacles;
- (b) a substance transfer device constructed and arranged to operatively interact with a first set of two or more of the plurality of receptacles held in said receptacle holding structure to simultaneously dispense substance into each of the two or more receptacles of the first set and to



operatively interact with a second set of two or more of the plurality of receptacles held in said receptacle holding structure to simultaneously remove substance from each of the two or more receptacles of the second set, wherein said substance transfer device is constructed and arranged to simultaneously remove substance from each of the two or more receptacles of the second set at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set;

(c) a receiving structure for receiving a removable contamination limiting element holding device for removably holding a plurality of contamination limiting elements which are operatively engageable by said substance transfer device to limit contact between said substance transfer device and a potentially contaminating substance dispensed by said substance transfer device into the two or more receptacles of the first set or between said substance transfer device and a potentially contaminating substance removed by said substance transfer device from the two or more receptacles of the second set, said receiving structure being constructed and arranged so that the contamination limiting element holding device held thereby is positioned and oriented to:

(i) receive and removably hold a plurality of contamination limiting elements in an operative orientation in which the contamination limiting elements can be operatively engaged by said substance transfer device, and

(ii) allow said substance transfer device to simultaneously engage two or more of the plurality of contamination limiting elements and allow the two or more contamination limiting elements engaged by said substance transfer device to be removed from the contamination limiting element holding device; and

(d) a substance transfer device positioning structure associated with said receptacle holding structure and said receiving structure and constructed and arranged to:

(i) permit said substance transfer device to be positioned with respect to the contamination limiting element holding device operatively held by said receiving structure to allow said substance transfer device to operatively engage the two or more contamination limiting elements, and

(ii) permit said substance transfer device to be positioned with respect to said receptacle holding structure to allow said substance transfer device to:

(1) simultaneously dispense substance into each of the two or more receptacles of the first set,

(2) simultaneously remove substance from each of the two or more receptacles of the second set, or

(3) simultaneously dispense substance into each of the two or more receptacles of the first set and simultaneously remove substance from each of the two or more receptacles of the second set at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set.

23. The work station of claim 22, further comprising a removable contamination limiting element holding device operatively held by said receiving structure.

24. A work station for simultaneously performing multiple assays, said work station comprising:

(a) a receiving structure for receiving a removable receptacle holding device for holding a plurality of receptacles;

(b) a substance transfer device constructed and arranged to operatively interact with a first set of two or more of a plurality of receptacles held in a receptacle holding device operatively held by said receiving structure to simultaneously dispense substance into each of the two or more receptacles of the first set and to operatively interact with a second set of two or more of the plurality of receptacles held in the receptacle holding device to simultaneously remove substance from each of the two or more receptacles of the second set, wherein said substance transfer device is constructed and arranged to simultaneously remove substance from each of the two or more receptacles of the second set at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set;

(c) a contamination limiting element holding structure for removably holding a plurality of contamination limiting elements which are operatively engageable by said substance transfer device to limit contact between said substance transfer device and a potentially contaminating substance removed by said substance transfer device from the two or more receptacles of the second set, said contamination limiting element holding structure being constructed and arranged to:

21 (i) receive and removably hold the plurality of contamination limiting  
22 elements in an operative orientation in which the contamination limiting elements can be  
23 operatively engaged by said substance transfer device, and

24 (ii) allow said substance transfer device to simultaneously engage two or  
25 more of the plurality of contamination limiting elements and allow the two or more  
26 contamination limiting elements engaged by said substance transfer device to be removed  
27 from said contamination limiting element holding structure; and

28 (d) a substance transfer device positioning structure associated with said receiving  
29 structure and said contamination limiting element holding structure and constructed and  
30 arranged to:

31 (i) permit said substance transfer device to be positioned with respect to said  
32 contamination limiting element holding structure to allow said substance transfer device  
33 to operatively engage the two or more contamination limiting elements, and

34 (ii) permit said substance transfer device to be positioned with respect to the  
35 receptacle holding device operatively held by said receiving structure to allow said  
36 substance transfer device to:

37 (1) simultaneously dispense substance into each of the two or more  
38 receptacles of the first set,

39 (2) simultaneously remove substance from each of the two or more  
40 receptacles of the second set, or

41 (3) simultaneously dispense substance into each of the two or more  
42 receptacles of the first set and simultaneously remove substance from each of the  
43 two or more receptacles of the second set at about the same time that said  
44 substance transfer device is simultaneously dispensing substance into each of the  
45 two or more receptacles of the first set.

1 25. The work station of claim 24, further comprising a removable receptacle holding  
2 device operatively held by said receiving structure.

1           26.     A work station for simultaneously performing multiple assays, said work station  
2 comprising:

3           (a)     a first receiving structure adapted to receive and carry a receptacle holding  
4 structure for holding a plurality of receptacles, said first receiving structure being constructed  
5 and arranged to position a receptacle holding structure carried thereby so that receptacles held by  
6 the receptacle holding structure are arranged and oriented to be engageable by a substance  
7 transfer device for dispensing substances into or removing substances from two or more of the  
8 receptacles simultaneously;

9           (b)     a second receiving structure adapted to receive and carry a contamination limiting  
10 element holding structure for removably holding a plurality of contamination limiting elements  
11 which are operatively engageable by a substance transfer device to limit contact between the  
12 substance transfer device and a potentially contaminating substance removed by the substance  
13 transfer device from two or more receptacles, said second receiving structure being constructed  
14 and arranged to position a contamination limiting element holding structure carried thereby so  
15 that contamination limiting elements held by the contamination limiting element holding  
16 structure are positioned and oriented to permit a substance transfer device to operatively engage  
17 two or more of the contamination limiting elements simultaneously and remove the two or more  
18 contamination limiting elements from the contamination limiting element holding structure; and

19           (c)     a substance transfer device positioning structure associated with said first and  
20 second receiving structures and constructed and arranged to:

21           (i)     permit a substance transfer device to be positioned with respect to a  
22 contamination limiting element holding structure carried by said second receiving  
23 structure to allow the substance transfer device to simultaneously engage two or more  
24 contamination limiting elements held by the contamination limiting element holding  
25 structure, and

26           (ii)    permit a substance transfer device to be positioned with respect to a  
27 receptacle holding structure carried by said first receiving structure to allow the substance  
28 transfer device to simultaneously dispense substances into or simultaneously remove  
29 substances from two or more receptacles held by the receptacle holding structure.

1           27.     The work station of claim 26, further comprising:

2           a receptacle holding structure carried by said first receiving structure, said receptacle  
3     holding structure being constructed and arranged to hold a plurality of receptacles and to arrange  
4     and orient the receptacles so as to be engageable by a substance transfer device for dispensing  
5     substances into or removing substances from two or more of the receptacles simultaneously; and  
6           a contamination limiting element holding structure carried by said second receiving  
7     structure, said contamination limiting element holding structure being constructed and arranged  
8     to removably hold a plurality of contamination limiting elements which are operatively  
9     engageable by a substance transfer device to limit contact between the substance transfer device  
10    and a potentially contaminating substance removed by the substance transfer device from two or  
11    more receptacles, said contamination limiting element holding structure being constructed and  
12    arranged to:

13           (i)     receive and removably hold a plurality of contamination limiting elements  
14     in an operative orientation in which the contamination limiting elements can be  
15     operatively engaged by a substance transfer device, and

16           (ii)    allow a substance transfer device to simultaneously engage two or more of  
17     the plurality of contamination limiting elements and allow the two or more  
18     contamination limiting elements engaged by the substance transfer device to be removed  
19     from the contamination limiting element holding structure.

20           28.     The work station of claim 26, further comprising a substance transfer device  
21     constructed and arranged to:

22           (a)     operatively interact with a first set of two or more of a plurality of receptacles  
23     held in a receptacle holding structure carried by said first receiving structure to simultaneously  
24     dispense substance into each of the two or more receptacles of the first set and to operatively  
25     interact with a second set of two or more of the plurality of receptacles held in the receptacle  
26     holding structure to simultaneously remove substance from each of the two or more receptacles  
27     of the second set, wherein said substance transfer device is constructed and arranged to  
28     simultaneously remove substance from each of the two or more receptacles of the second set at  
29     about the same time that said substance transfer device simultaneously dispenses substance into  
30     each of the two or more receptacles of the first set, and  
31

(b) operatively engage two or more of a plurality of contamination limiting elements held by a contamination limiting element holding structure carried by said second receiving structure and to remove the two or more contamination limiting elements from the contamination limiting element holding structure,

said substance transfer device including guide members constructed and arranged to cooperate with said substance transfer device positioning structure to position said substance transfer device with respect to a contamination limiting element holding structure carried by said second receiving structure to allow said substance transfer device to operatively engage two or more contamination limiting elements held by the contamination limiting element holding structure, or to position said substance transfer device with respect to a receptacle holding structure carried by said first receiving structure to allow said substance transfer device to:

(i) simultaneously dispense substance into each of a first set of two or more receptacles held by the receptacle holding structure,

(ii) simultaneously remove substance from each of a second set of two or more receptacles held by the receptacle holding structure, or

(iii) simultaneously dispense substance into each of a first set of two or more receptacles held by the receptacle holding structure and simultaneously remove substance from each of a second set of two or more receptacles held by the receptacle holding structure at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set.

29. The work station of claim 26, further comprising a substance transfer device constructed and arranged to:

(a) operatively interact with two or more of a plurality of receptacles held in a receptacle holding structure carried by said first receiving structure to simultaneously dispense substance into each of the two or more receptacles or to operatively interact with two or more of the plurality of receptacles held in the receptacle holding structure to simultaneously remove substance from each of the two or more receptacles, and

(b) operatively engage two or more of a plurality of contamination limiting elements held by a contamination limiting element holding structure carried by said second receiving structure and to remove the two or more contamination limiting elements from the contamination limiting element holding structure,

12 said substance transfer device including guide members constructed and arranged to  
13 cooperate with said substance transfer device positioning structure to position said substance  
14 transfer device with respect to a contamination limiting element holding structure carried by said  
15 second receiving structure to allow said substance transfer device to operatively engage two or  
16 more contamination limiting elements held by the contamination limiting element holding  
17 structure, or to position said substance transfer device with respect to a receptacle holding  
18 structure carried by said first receiving structure to allow said substance transfer device to:

19 (i) simultaneously dispense substance into each of two or more receptacles  
20 held by the receptacle holding structure, or

21 (ii) simultaneously remove substance from each of two or more receptacles  
22 held by the receptacle holding structure.

30. The work station of claim 26, further comprising:

a first substance transfer device constructed and arranged to operatively interact with two  
or more of a plurality of receptacles held in a receptacle holding structure carried by said first  
receiving structure to simultaneously dispense substance into each of the two or more  
receptacles,

said first substance transfer device including guide members constructed and  
arranged to cooperate with said substance transfer device positioning structure to position  
said first substance transfer device with respect to a receptacle holding structure carried  
by said first receiving structure to allow said substance transfer device to simultaneously  
dispense substance into each of two or more receptacles held by the receptacle holding  
structure; and

a second substance transfer device constructed and arranged to operatively engage two or  
more of a plurality of contamination limiting elements held by a contamination limiting element  
holding structure carried by said second receiving structure and to remove the two or more  
contamination limiting elements from the contamination limiting element holding structure and  
to operatively interact with two or more of a plurality of receptacles held in a receptacle holding  
structure carried by said first receiving structure to simultaneously remove substance from each  
of the two or more receptacles,

said second substance transfer device including guide members constructed and  
arranged to cooperate with said substance transfer device positioning structure to position

21 said substance transfer device with respect to a contamination limiting element holding  
22 structure carried by said second receiving structure to allow said substance transfer  
23 device to operatively engage two or more contamination limiting elements held by the  
24 contamination limiting element holding structure or to position said substance transfer  
25 device with respect to a receptacle holding structure carried by said first receiving  
26 structure to allow said substance transfer device to simultaneously remove substance  
27 from each of two or more receptacles held by the receptacle holding structure.

1 31. The work station of claim 27, further comprising a substance transfer device  
2 constructed and arranged to:

3 (a) operatively interact with a first set of two or more of a plurality of receptacles  
4 held in said receptacle holding structure to simultaneously dispense substance into each of the  
5 two or more receptacles of the first set and to operatively interact with a second set of two or  
6 more of the plurality of receptacles held in said receptacle holding structure to simultaneously  
7 remove substance from each of the two or more receptacles of the second set, wherein said  
8 substance transfer device is constructed and arranged to simultaneously remove substance from  
9 each of the two or more receptacles of the second set at about the same time that said substance  
10 transfer device simultaneously dispenses substance into each of the two or more receptacles of  
11 the first set, and

12 (b) operatively engage two or more of a plurality of contamination limiting elements  
13 held by said contamination limiting element holding structure and to remove the two or more  
14 contamination limiting elements from the contamination limiting element holding structure,  
15 said substance transfer device including guide members constructed and arranged to  
16 cooperate with said substance transfer device positioning structure to position said substance  
17 transfer device with respect to said contamination limiting element holding structure to allow  
18 said substance transfer device to operatively engage two or more contamination limiting  
19 elements held by said contamination limiting element holding structure or to position said  
20 substance transfer device with respect to said receptacle holding structure to allow said  
21 substance transfer device to:

22 (i) simultaneously dispense substance into each of a first set of two or more  
23 receptacles held by said receptacle holding structure,



(ii) simultaneously remove substance from each of a second set of two or more receptacles held by said receptacle holding structure, or

(iii) simultaneously dispense substance into each of a first set of two or more receptacles held by said receptacle holding structure and simultaneously remove substance from each of a second set of two or more receptacles held by said receptacle holding structure at about the same time that said substance transfer device is simultaneously dispensing substance into each of the two or more receptacles of the first set.

32. The work station of claim 27, further comprising a substance transfer device constructed and arranged to:

(a) operatively interact with two or more of a plurality of receptacles held in said receptacle holding structure to simultaneously dispense substance into each of the two or more receptacles or to operatively interact with two or more of the plurality of receptacles held in said receptacle holding structure to simultaneously remove substance from each of the two or more receptacles, and

(b) operatively engage two or more of a plurality of contamination limiting elements held by said contamination limiting element holding structure and to remove the two or more contamination limiting elements from said contamination limiting element holding structure,

said substance transfer device including guide members constructed and arranged to cooperate with said substance transfer device positioning structure to position said substance transfer device with respect to said contamination limiting element holding structure to allow said substance transfer device to operatively engage two or more contamination limiting elements held by said contamination limiting element holding structure or to position said substance transfer device with respect to said receptacle holding structure to allow said substance transfer device to:

(i) simultaneously dispense substance into each of two or more receptacles held by said receptacle holding structure, or

(ii) simultaneously remove substance from each of two or more receptacles held by said receptacle holding structure.

1           33.     The work station of claim 27, further comprising:

2           a first substance transfer device constructed and arranged to operatively interact with two  
3     or more of a plurality of receptacles held in said receptacle holding structure to simultaneously  
4     dispense substance into each of the two or more receptacles,

5           said first substance transfer device including guide members constructed and  
6           arranged to cooperate with said substance transfer device positioning structure to position  
7           said first substance transfer device with respect to said receptacle holding structure to  
8           allow said substance transfer device to simultaneously dispense substance into each of  
9           two or more receptacles held by said receptacle holding structure; and

10          a second substance transfer device constructed and arranged to operatively engage two or  
11       more of a plurality of contamination limiting elements held by said contamination limiting  
12       element holding structure and to remove the two or more contamination limiting elements from  
13       said contamination limiting element holding structure and to operatively interact with two or  
14       more of a plurality of receptacles held in said receptacle holding structure to simultaneously  
15       remove substance from each of the two or more receptacles,

16          said second substance transfer device including guide members constructed and  
17          arranged to cooperate with said substance transfer device positioning structure to position  
18          said substance transfer device with respect to said contamination limiting element  
19          holding structure to allow said substance transfer device to operatively engage two or  
20          more contamination limiting elements held by said contamination limiting element  
21          holding structure or to position said substance transfer device with respect to said  
22          receptacle holding structure to allow said substance transfer device to simultaneously  
23          remove substance from each of two or more receptacles held by said receptacle holding  
24          structure.

1           34.     A substance transfer device for simultaneously dispensing substances into and  
2     removing substances from two or more receptacles, said substance transfer device comprising:

3           (a)     a support member;

4           (b)     a substance dispensing apparatus operatively mounted to said support member  
5     and including two or more conduits, said substance dispensing apparatus being constructed and  
6     arranged to simultaneously dispense substance through each of said two or more conduits of said  
7     substance dispensing apparatus into each receptacle of a first set of two or more receptacles;

8 (c) a substance removing apparatus operatively mounted to said support member and  
9 including two or more conduits, said substance removing structure being constructed and  
10 arranged to simultaneously remove substance through each of said conduits of said substance  
11 removing apparatus from each receptacle of a second set of two or more receptacles,  
12 wherein said substance transfer device is constructed and arranged to remove substance  
13 from each of the receptacles of the second set with said substance removing apparatus at about  
14 the same time said substance dispensing apparatus is dispensing substance into each of the  
15 receptacles of the first set.

1 35. The substance transfer device of claim 34, further comprising a pair of handle  
2 members operatively mounted to said support member to facilitate handling of said substance  
3 transfer device by a user.

4 36. The substance transfer device of claim 34, wherein a portion of each of said  
5 conduits of said substance removing apparatus defines a contamination limiting element  
6 engaging structure constructed and arranged to operatively engage a contamination limiting  
7 element for limiting contact between said substance removing apparatus and a potentially  
8 contaminating substance removed by said substance removing apparatus from the two or more  
9 receptacles of the second set.

10 37. The substance transfer device of claim 36, further comprising a contamination  
11 limiting element disengaging structure operatively associated with said substance removing  
12 apparatus and constructed and arranged to selectively disengage each of the contamination  
13 limiting elements engaged by said contamination limiting element engaging structures.